

presiding over his section before he will be eligible to read his paper.

5. Absolutely no paper may be "read by title." By consulting the program appearing in this and in the May issue, as well as the special program issued at the state meeting, each author can learn definitely when his paper is due to be read.

6. Failure on the part of an author to appear and read his paper automatically precludes the acceptance of future papers by such author for a period of two years.

#### Rules for Those Taking Part in Discussions

1. Openers are limited to five minutes.
2. Subsequent speakers are limited to three minutes.
3. The privilege of a second three minutes will not be granted to any one.

## County Societies

### ALAMEDA COUNTY

The regular monthly meeting of the Alameda County Medical Society was held February 16 and the following papers were read and widely discussed:

Chronic Complications following Gonorrhea; Their recognition and management. Dr. Geo. G. Reinle and Dr. E. Spence De Puy.

The X-Ray in Therapeutics: Dr. S. A. Jelte.

The Lav Anesthetist; Dr. David Hader.

The following were elected to membership in the Society: Dr. Lucy Ruth Kilgore, Dr. Richard G. Watson, Dr. J. W. Scannell, Dr. O. P. Stowe.

On Saturday, March 6, the County Society met at a Victory Banquet at the Hotel Oakland. There were present a hundred members to do honor to the medical men of the Society who have returned from Military or Naval Service.

The Honorary guests of the evening were Dr. C. A. L. Reed of Cincinnati, who delivered an interesting address upon the advisability of concentrating the nation's Public Health Services under one head; Dr. Saxton Pope of San Francisco, who spoke convincingly regarding the duty of each member of the Society to subscribe to the Indemnity Fund; and Dr. H. A. L. Ryfkogel of San Francisco, who spoke upon the Public Health problems falling under the control of the League of Nations.

Three highly appreciated vocal selections were, in the course of the evening, rendered by Mrs. Julia Phillips Page, wife of Dr. Clarence Page, and the University of California Quartet rendered four pleasing selections in its customary charming manner.

#### Personal.

Dr. Benjamin Thomas has returned from military services and resumed private practice.

Dr. Elsie Reed Mitchell and Dr. Clara Williams, both of Berkeley, are among the women physicians who are now doing medical relief work in Turkey and Armenia.

### CONTRA COSTA COUNTY.

At the first regular meeting of 1920 of the Contra Costa County Medical Society held January 31, the following officers were elected: Dr. G. M. O'Malley, president, Crockett; Dr. M. L. Fernandez, vice-president; Dr. C. T. Wetmore, secretary-treasurer, Hercules.

Dr. Dudley Smith of Oakland gave a very interesting and instructive talk on the organization, achievements and purposes of the League for the Conservation of Public Health. Several members of this society pledged their support to the cause of the League.

### FRESNO COUNTY

The Fresno County Medical Society resumed its usual activity Tuesday evening, March 2. This being the first regular meeting held since January on account of the prevalence of influenza.

Dr. J. H. Pettis, president, opened the meeting and introduced Dr. Joseph Catton of San Francisco who delivered a scientific paper on malingering.

Dr. Catton spoke of malingering both in civil and military organizations, its prevalence but more particularly of the cost to the nation and the individual industries of the nation. He called attention to the significance of a thorough examination of the supposed malingerer both as to his bodily defects but especially to his psychic condition. The speaker drew a very nice distinction between true malingering and hysteria.

Before malingering can be diagnosed the following must be ruled out: 1. Organic disease; 2. Possible aftermath when original injury is completely healed; 3. Hysteria; 4. Fraud must be demonstrated; 5. Psychiatric examination must show absence of psychoneuroses, psychoses, inebriety, mental deficiency and constitutional psychopathy.

The discussion brought forth was lively and has led to suggestions that informal discussions be limited to five minutes each.

Dr. Charles L. Tranter of San Francisco was then introduced and he gave a short but very comprehensive paper on peripheral nerve surgery. The speaker dealt principally with the progress that has been made in this branch of surgery since 1915. Attention was called to some of the important and more recent tests of nerve regeneration particularly Tinel's formication test and muscle reflex.

Dr. Tranter is still in the service and he told of his work with Tinel as well as his work at Foxhill, N. Y.

A discussion of the paper brought out the inadequacy of the older methods of diagnosis.

It having been brought to the attention of the Board of Governors that certain members of the County Society had been called to the bedside of dying Eddyites for the sole purpose of making diagnoses and signing death certificates the following resolution was adopted in open meeting:

It having been brought to the attention of the Board of Governors that such had occurred, it hereby condemns the practice of signing death certificates of christian scientists, all sects, cults or creeds who do not believe in the practice of scientific medicine unless such practitioners have been in regular attendance.

### LOS ANGELES COUNTY.

#### Los Angeles County Medical Association.

Meeting of February 5.

The first monthly meeting took place in the Friday Morning Club at the usual time.

In the absence of the president, Dr. Rae Smith, the vice-president, Dr. John V. Barrow, presided.

Dr. Newton Evans gave a very interesting pictorial talk on "Malignant Myomas of the Uterus."

Dr. Maurice Kahn read a very interesting paper on "How May We Reduce the Mortality in Appendicitis?"

Dr. H. H. Koons' subject was "Some Observations on the Use of Vaccines and Other Acids in the Treatment of Influenza Pneumonia." His conclusions were:

1. A prophylactic dose will confer immunity from six to eight weeks.

2. As a remedial agent, if given at onset, will materially shorten and lessen the severity of attack and pneumonia will be rare occurrence.

3. If given to pneumonia patient, ameliorates severity of symptoms, hastens crisis, and cuts number of serious sequela to minimum.

Broncho-pneumonia should always be treated inside, protected from exposure to drafts or radical changes in temperature.

### THE LOS ANGELES SURGICAL SOCIETY

Special meeting on February 9th. All members of the Los Angeles County Medical Association were invited.

Dr. Charles Lockwood, the president, introduced Dr. Emil G. Beck of Chicago, whose subject was "The Balance of Power in Immunity."

### The Los Angeles County Medical Association Meeting, February 19, 1920.

The society met February 19, 1920, at 8 p. m., in the hall of the Friday Morning Club.

Dr. Rae Smith, the president, called the meeting to order and introduced Dr. W. W. Duke of Kansas City, to speak on "Glands of Internal Secretion." Dr. Duke said that the glands must be taken together, as they are all interdependent. He illustrated the subject with many striking stereopticon pictures showing typical conditions of infantile myxedema, hyper and hypo-thyroidism, pituitarism and gigantism.

"The Medical Profession and the New Era" was the next subject, read by Dr. Chas. A. L. Reed of Cleveland, former president of the American Medical Association. Dr. Reed advocated the union of doctors so that they may appraise the value of their services to society and exact a fair measure. We have 150,000 members, many nurses, hospitals and sanatoria. The national, state and county societies must effect the maximum organization to investigate compensation for medical services, and this county society should appoint a committee for that purpose. Does the medical group live up to its responsibilities? There are 7000 hospitals without a pecuniary profit, there are medical schools, thousands of poor are visited and the medical profession has served in greater proportion than any other group. Yet the National Health Service is taking orders from the Treasury Department. The Navy Department and the Secretary of the Interior meddle with our work. A single Health Department ought to control. The medical group is subordinated to some overlordship. Medical examiners for insurance companies have made millions for the promoters by working for very little. Shop insurance, the casualty group and such like, dictate the recompense, the Workman's Compensation Act tells what the compensation shall be. The service of medical men is more poorly paid than any other group of society. Dr. Reed referred to the petroleum, the capitalistic and shop groups having each employee examined, all injury given immediate attention, but 300 per cent. more is collected than paid the doctor. He urged solidarity, autonomy of the whole medical group. On the other hand, if present conditions continue, they will lower medical efficiency and society will be the greatest sufferer.

The president, Dr. Smith, thanked Dr. Reed on behalf of the society.

Dr. True spoke of the local condition and the possible menace coming from capitalism, and that we have many issues here. The "School Protective League" is masquerading under this name to strike at all health functions of the medical profession. The State Board of Education has ruled that there is a distinction between health inspection and physical examination. Inspection may be made by teachers, principals, nurses and doctors.

Dr. Duffield reported on behalf of the committee appointed to make a survey of the entire

nursing system. A full report will be made at the next meeting from the standpoint of the doctors. In three hospitals the alumnae association of nurses decided that they would not nurse more than 12 hours a day.

### Personals

Dr. A. O. Sanders, on the civil service list, was appointed as superintendent of the Olive View Sanitarium yesterday by the Board of Supervisors. The sanitarium will open in about two months.

Dr. D. C. Bryant and Dr. G. L. Blanchard, Oculists and Aurists; 716 Broadway Central Bldg., Phone 15509.

Dr. Rex Duncan, Radium and Oncologic Institute; 1151 West 6th Street, Phone Pico 929.

Dr. D. Buie Garstang, Urology; 934-935 Marsh-Strong Bldg., Phone 11204.

Dr. W. H. Mayne, Genito-Urinary Diseases; 917 Brockman Bldg.

Dr. Thomas W. O'Reilly, Roentgenologist; 305 I. N. Van Nuys Bldg., Phone Pico 3979.

### Los Angeles Doctors for State Health Board

Dr. Irving R. Bancroft of Los Angeles was appointed February 28 by Governor Stephens as a member of the State Board of Health, succeeding Dr. W. H. Kellogg.

Dr. Walter Lindley of Los Angeles, head of the California Hospital, which institution he founded, was also appointed to the State Board of Health, succeeding Dr. LeMoyné Wills of Pasadena.

### Illness

Dr. J. Mark Lacey, former medical director of the Los Angeles County Hospital, is ill with septicemia, caused by an injury to his hand February 29, in performing an autopsy.

### Municipal Drug Clinic

Dr. J. W. Nevius will be the head of the clinic to be opened in the Temple Block under the direction of the city and the Federal government. The habit, Dr. Nevius says, is a disease and not a vice. The addicts are not "dope fiends." They do not take the drug for pleasure. These unfortunate patients should have a square deal; many of them can be cured.

### Pomeroy's Ruling Verified

Dr. J. L. Pomeroy, County Health Officer, was confirmed in his ruling requiring health inspectors to note signs of contagious diseases. Superintendent of Los Angeles Schools Susan M. Dorsey says "A new ruling of the State Board of Education distinguishes between health inspection and physical examination. Health inspection may be made by all school teachers, principals, nurses and doctors and no special certification is needed for this work, nor is any excuse allowed from health inspection which consists of the following:

"Note signs of contagious diseases or skin and scalp infections.

"Note signs of defects of eyes, nose, throat, and teeth.

"Measure height and weight and note condition and nutrition.

"The State Board of Education advises and directs that health inspection work, particularly that which relates to the search of contagious diseases, and for the lesser communicable conditions, be carried out."

### MISCELLANEOUS

#### Los Angeles Tuberculosis Association

At the annual meeting of the Los Angeles Tuberculosis Association, February 8, a reorganization was effected and the following officers elected:

Mrs. J. J. A. Van Kaathoven, president; Dr. Charles C. Browning, vice-president; Louis M. Cole, vice-president; George H. Kress, vice-

president; Mrs. Benjamin Goldman, secretary; John P. Burke, treasurer; Mrs. J. M. Danziger, chairman of finance; Dr. W. Jarvis Barlow, chairman of advisory council; Dr. Norman Bridge, president emeritus. Directors are Dr. R. L. Cunningham, Mrs. Danziger, Dr. Donald M. Frick, Oscar Lawler and Dr. Percy T. Magan.

Miss Sidney Maguire, executive secretary of the association, in making announcement of the complete reorganization, said:

"The Los Angeles Tuberculosis Association is now on an absolutely efficient basis. The past three years have been devoted to laying the ground work for a great, constructive health program and now we are all 'set for action.' Our money and energies will be given to work along the following lines: administrative, educational, dispensaries and clinics, social service and the direct prevention of tuberculosis among children."

#### Vaccination for Influenza

Vaccination for influenza and pneumonia will be given free of charge at the City Health Department, Fifth and Hope, between 8 and 9 in the morning; Boyle Dispensary, 312 North Boyle Avenue, 12 to 1; County Hospital, 700 Mission Road, Tuesday and Friday at 10 a. m.; University Police Station, 825 West Jefferson, Monday and Thursday, 9 to 10; the University of Southern California Medical College, 516 East Washington, from 1 to 3; and the University of California Medical College, 737 North Broadway, from 12 to 1.

Dr. L. M. Powers, health commissioner of Los Angeles, said, February 19, that the cases this year are milder and appeared to be a decline in the number of new cases.

#### Deaths

Dr. Abraham Feldman, Hammon, Cal., College of Physicians and Surgeons, Los Angeles, 1916; aged 30; a member of the Medical Society of the State of California; Lieutenant U. S., N. R. F., and relieved from other duty July 11, 1919; died January 20, from pneumonia.

Dr. John Walton Ross, member of the A. M. A., Pasadena Cal.; Tulane University, New Orleans, 1868; aged 77; medical director U. S. Navy, retired; died February 9th, 1920.

Dr. Robert Kells Hackett, member of the A. M. A. and Cal. State Medical; Major, M. C., U. S. Army, Los Angeles; Tulane University, New Orleans, 1899; aged 49; died in San Francisco, January 1st, 1920.

Dr. Robert Pooler Myers, Claremont, Cal., Savannah, Ga., Medical College, 1860; aged 80; a member of the Medical Society of Hawaii, and for several years a resident of Honolulu; died January 1.

Dr. Edgar D. Seaman, Los Angeles, Columbia College, N. Y., Oct. 2, 1883; member of the Medical Society of the State of California; age 65; died February 21.

#### ORANGE COUNTY

The regular meeting of the Orange County Medical Society was held at the Santa Ana Public Library on the evening of March 3. The Society was entertained by a very interesting and instructive paper by Dr. A. B. Cecil of Los Angeles. By the use of the lantern slides the doctor illustrated and explained many of the anomalies of the kidney dealing largely with the embryology. A luncheon at James' Cafe closed the meeting.

#### RIVERSIDE COUNTY

The Officers and Delegates to the State Society of the Riverside County Medical Society for the year 1920 are as follows:

President, Bon O. Adams, M. D.; Vice-Presi-

dent, Arthur L. Brown, M. D.; Secretary-Treasurer, Paul E. Simonds, M. D.

Delegates to State Society: L. M. Ryan, M. D., (1920); Alternate, Bon O. Adams, M. D.; Paul E. Simonds, M. D., (1920-1921); Alternate, W. D. Rolph, M. D.

#### SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was held at the Hotel Sacramento, February 17.

Paper of the evening by Dr. C. W. Wahrer on the subject of "The prevention of post-operative vomiting and abdominal distention." Many remedies, which heretofore have been recommended for the treatment of these conditions, have been abandoned and operators now seek to prevent nausea and gas pains, by modifying their technique according to the teachings of Crile and Henderson; shock, nausea, vomiting, distention, are largely contributed to, by rough manipulations of the intestines, tearing of adhesions, too many gauze packs, burying too many ligatures, mass sutures, imperfect hemostasis, and too tight strapping of the abdomen.

Morphine and atropine, with gas-oxygen anesthesia, are highly recommended by the author.

Dr. Fay reported a case of fractured clavicle, the fragments of which could only be held in apposition by the use of a wooden "T" frame, strapped to the back, with adhesive strips connecting the injured member with the cross-arm of the "T."

Dr. Brendel reported a case of complete suppression of urine for 60 hours (post-operative) and now, that the blood-pressure had risen to 300 mm. Hg. there had been a secretion of eight pints in 24 hours.

Dr. Dillon reported a similar case in a multipara (6 months), who went 72 hours with complete suppression, and is now beginning to secrete again.

Dr. Hale reported a case of gonorrheal rheumatism, the urine from the kidneys of whom, showed Gram-positive cocci; lavage of the pelvis of the kidneys, greatly ameliorated the constitutional condition.

#### SAN DIEGO COUNTY

The meeting of the San Diego Society on the 24th of February brought out a goodly attendance and discussed two excellent papers: one by Dr. Thos. O. Burger on "The Indications for and the Technic of Cesarean Section"; the other by Dr. P. M. Carrington on "The Early Diagnosis of Tuberculosis." Both of these papers were of a high order and were liberally discussed.

The meeting of February 27 was in the form of a complimentary banquet at the Maryland Hotel to Dr. C. A. L. Reed of Cincinnati. The Doctor discussed in a masterful manner "The Medical Profession and the New Era," a brief summary of which is herewith appended.

The medical profession was defined as the social group that is devoted to the conservation of human health and life; the new era as the period of time that began with the signing of the peace treaty at Versailles. The chief characteristic of the New Era is political, social and economic change. This is manifested by the rapid evolution of groupism as distinguished from one-time individualism. Groups, both capitalistic and laboristic, are developed for selfish purposes, in the sense that each has for its object the protection of its own material welfare. Of all the social groups the medical group, by which is meant the medical profession, is the only one that has not organized with this object in view. The result is that the status, influence and functions of the medical group are being rapidly subordinated to and appro-

priated by all the other groups, both capitalistic and laboristic. If the medical profession is to maintain its position, discharge its obligations and protect its own welfare, it, like the other groups, must organize with these objects in view. This is a defensive necessity and a progressive duty. It is important, therefore, that every medical society shall bring its membership up to the maximum and must then, by committee, investigate the actual conditions as they exist in the unit territory covered by the organization. Action, and prompt action, should then be taken in the light of the facts thus determined.

The council of the Society reconstructed at a recent meeting its certified milk commission which now consists of Drs. Thompson, Crawford, Pickard, Cleverdon and Baker. The certified milk commission is accumulating information in connection with the general milk supply of the city.

How does Coronado 1921 sound as a convention possibility? The San Diego County Society can at least promise bed and board at a specified rate.

The Society lost a valued member in the recent death of Dr. I. M. Zimmerman.

Dr. E. A. Hensel has returned to town after a recuperative vacation following his long illness. His many friends will be glad to see him in the harness again.

Dr. J. H. Mallory has resumed "civies" and opened offices in the First National Bank Building. The Doctor intends to limit his practice to diseases of the nose, throat and chest.

The following were voted into membership in the San Diego Society on February 28: Drs. Will H. Potter, Wm. I. Kinsley, Felix E. Ashcroft, Walter G. Finley and Leon DeVille.

#### SAN FRANCISCO COUNTY

##### Proceedings of the San Francisco County Medical Society

During the month of February, 1920, the following meetings were held:

##### Tuesday, February 3—Section on Medicine

1. Endemic goitre.—W. J. Kerr.
2. A functional test of the circulation.—Thos. Addis.

##### Tuesday, February 10—General Meeting

1. Moving pictures of peripheral nerve lesions. Transposition of nerves.—H. C. Naffziger.
2. Fighting the cootie. Moving picture from the Surgeon-General's Office, Instruction Laboratory.—Morris Herzstein.

##### Tuesday, February 17—Section on Surgery.

1. Gunshot wounds of the brain.—E. B. Towne.
2. Surgical indications in so-called gastric tetany.—Sol. Hyman.

##### Tuesday, February 24—Section on Eye, Ear, Nose and Throat

1. Demonstration of cases.
2. Fistulae of labyrinth following radical mastoid.—W. B. Smith.
3. Report on several anomalous cases of mastoiditis.—F. M. Shook.
4. Treatment of foreign bodies in the eye.—W. F. Blake.

#### SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held on Friday, February 13, at the Hotel Lincoln. Those present were the following: Drs. H. E. Sanderson, J. D. Dameron, C. D. Holliger, H. J. Bollinger, R. T. McGurk, J. E. Nelson, A. H. McLeish, W. C. Adams, F. S. Marnell, S. P. Tuggle, J. P. Martin, Grace McCoskey, L. Dozier, W. F. Priestly, W. T. McNeil, H. C. Petersen, J. T. Davidson, H. Q. Willis, F. J. Conzelman, F. P. Clark, C. R. Harry, L. Haight, Mary Taylor, Emilie Gnekow, Margaret Smythe, Minerva Goodman, B. J. Powell,

D. R. Powell, with Dr. Harold Brunn of San Francisco as speaker of the evening.

Dr. Dameron presented a case, Ring Carcinoma of the Bowel, and Dr. McGurk presented a case history of Syphilis of the Liver. The paper of the evening was presented by Dr. Harold Brunn of San Francisco on "Some Clinical and Experimental Facts Concerning Intestinal Obstruction." He spoke of the influence of mesenteric vessels pressing upon the duodenum and causing a dilation of that portion of the small bowel. By schematic drawings he demonstrated the anatomical features, making this pressure of the vessels possible. He explained why the average case of dilated stomach is really a misnomer and the trouble is due to a dilated duodenum. He spoke of the importance of frequent washings of the stomach and even of the duodenum as treatment of these cases and also the advantage of the knee chest position which would relieve the tension upon the mesenteric vessels.

Following the paper and the discussion thereof, the meeting adjourned to enjoy light refreshments and a pleasant social hour.

#### SAN LUIS OBISPO.

Regular monthly meeting of the San Luis Obispo County Medical Society held Saturday night, March 13, at the Hotel Andrews in San Luis Obispo, eleven members present. After a good dinner at 6:30, President Miller called the meeting to order. Minutes of the two previous meetings read and approved. Application of Dr. C. A. Love of Atascadero favorably acted upon. Dr. W. M. Stover appointed delegate to the State meeting at Santa Barbara, with Dr. G. L. Sobey alternate.

Dr. T. C. Edwards of Salinas then addressed the meeting, his topic being the Defense Fund. Only one member up to this time had been a policy holder in it. Two other members then stated they had sent their checks in within the past two weeks, and at least two others signified their intention of doing so at once.

A new fee schedule was next presented for consideration and after considerable discussion, and a few changes, was adopted. It provides for a general raise in fees of about 20 per cent., which in view of the increased cost of everything, seemed quite fair to the meeting. The secretary was instructed to have fifty copies printed, mail two to each physician in the county, and one to the county secretaries of Kern and Monterey, asking their co-operation in the new prices.

The compensation schedule was next taken up, and the secretary instructed to write the companies doing business here asking for a general raise in rates. He is also to send a fee schedule to each of these companies as a basis for a new scale.

Meeting adjourned at 11 p. m.

Those present were: Drs. Miller, H. M. Cox, Roy Cox, Fossum, Shields, San Luis Obispo; Drs. Dresser, Wilmar, and Sobey, Paso Robles; Dr. C. A. Lowe, Atascadero.

Dr. T. C. Edwards of Salinas and Dr. Waldo Richardson of Atascadero, visitors.

#### SONOMA COUNTY

At the December meeting of the Sonoma County Medical Society the following officers were elected for the year 1920:

President, Dr. F. O. Butler, of Eldridge; Vice-President, Dr. W. C. Shipley, of Cloverdale; Secretary, Dr. N. Juell, of Santa Rosa; Treasurer, Dr. R. M. Bonar, of Santa Rosa.

The January meeting was held at the County Hospital, Dr. Butler presiding.

Dr. Pryor, the County physician, gave some case reports with pathological specimens.

Dr. Butler gave the paper of the evening on

the subject of Tuberculosis. An enthusiastic discussion followed, resulting in the appointment of a committee to confer with a Civic body from adjoining counties, with the object of establishing a Sanatorium for the segregation and treatment of the victims of tuberculosis. Under the advice and guidance of the energetic League officers, we hope soon to have something definite to report.

## Clinical Department

### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS.

Case No. 3. November 8, 1914. H. F., Male. American, 2 years 9 months.

**Complaint:** Feverishness. Apathy. Rigidity.

**Family History:** No familial disease. There are no other children and there have been no miscarriages. A child had meningitis in the home next door in 1913. Hygiene of family probably poor.

**Past History:** Full term, normal delivery, birth weight 9 pounds. Not breast fed, but given Eagle Brand condensed milk diluted, together with Horlick's malted milk. Development normal.

The child had pertussis in March, 1914. Other than for persistent coryza, the remainder of the past history is negative. The diet has been fairly good and no digestive upsets have occurred.

**Present Illness:** The child had apparently been in good health until 13 days before entry when there developed a coryza, followed in 3 days by anorexia, and a rapidly developing irritability which progressed in 2 days to stupor of varying intensity. The bowels were constipated and there was apparently fever. The day before entry rigidity of the neck developed and a single convulsion lasting one hour supervened.

**Physical Examination:** Well developed and nourished child of two and one-half years, somewhat stuporous, showing a slight bilateral internal strabismus, pupils equal and reacting to light, the fundi showed congestion of the vessels and pallor of the nerve heads. There was evidence of a left sided otitis media, mucous discharge from the nose, herpes about the lips, sordes on the teeth, tongue dry and coated, breath foul. There was marked rigidity of the neck, and some opisthotonus. The heart and lungs were normal. The radial pulse was full, equal, of good volume and tension. The abdomen was negative, as were the genitalia. The extremities were well formed and the tissue turgor was good. Reflexes showed absent patellars, biceps and triceps. Abdominals present. No Babinski or Oppenheim determined. Kernig's sign was inconstantly present, Brudzinski not elicited.

The temperature at entry was 38.4° C., pulse 120 and respirations 30.

Blood count—60% Hemoglobin, 32,000 leucocytes, 6,000,000 erythrocytes. Differential: Polys. 80%; lymphocytes, 15%; large monos. 5%; eosinophiles 2½%; basophiles 3%.

The urine was negative.

A lumbar puncture was done immediately and 8 c.c. of very turbid yellowish fluid withdrawn under very low pressure. No clot formed, but a thick sediment collected in the bottom of the tube in a very short time. Examination of the fluid showed 40,000 cells per cu. m. m. with 95% polymorphonuclears. Nonne ++; Noguchi ++; no reduction of Fehling's solution. There were great numbers of gram negative intra and extra cellular diplococci. Wassermann and cultures negative on this fluid. 15 c.c. of anti-meningococcus serum administered in the spinal canal.

**Treatment** consisted in the twelve hourly injection of from 15 to 30 c.c. of antimeningococcus serum intraspinally—a total for 5 days of 150 c.c. The amount of fluid which could be obtained by puncture, however, rapidly diminished, so that frequently only a few drops were secured. Restlessness was extreme, and convulsions were frequent. On the 5th day therefore, a bilateral trephine opening was made in the temporal region. From 40 to 60 c.c. of rather turbid fluid under greatly increased pressure and containing myriads of intra and extra cellular organisms were evacuated. The cells were 1,395 per c. m. m. in number and were all of the polymorphonuclear variety. Culture demonstrated the meningococcus. Following operation the child was much quieter, but Cheyne-Stokes respiration supervened and ten hours later death occurred.

No autopsy was permitted.

**Diagnosis:** Epidemic cerebro-spinal meningitis.

**Discussion:** This case demonstrates several points of interest particularly in view of the recent advances in the therapy of epidemic cerebro-spinal meningitis as developed during the war. The unquestionable advantage of intravenous therapy has been definitely proven preferably combined with the intraspinal, although in the septicemic variety with few signs and practically clear fluid, the intravenous method alone may be all that is needed. Cases of the type presented were frequently encountered in the army hospitals, both in the United States, and in France, namely, those with blocking, so that small amounts of fluid were all that could be obtained by spinal puncture. It is true that these usually ran a more protracted course and required more serum, but results were nevertheless good in a large percentage of cases by means of the intravenous administration of the serum.

The technic as employed in the army, so thoroughly proven in its efficacy in the southern epidemic, demonstrated its value most thoroughly. This consists in the performing of a diagnostic puncture immediately on entry. If the fluid is cloudy, serum is administered both intraspinally and intravenously—in adults—30-45 c.c. intraspinally and 60 c.c. intravenously. This is repeated for 4 doses, at intervals of 12 hours. The further treatment depends upon the course of the disease—the interval is usually lengthened to a combined injection each 24 hours, being entirely discontinued as soon as possible, since there is a very definite danger of too prolonged injections. The criteria for discontinuance consist in the condition of the spinal fluid, the subjective and objective symptoms and signs, or both.

In the case of clear fluid at the primary puncture, intravenous medication alone is administered and fluid is removed simply for pressure signs. It must not be forgotten to warm the serum to body heat, and to give a de-sensitizing dose of 1 c.c. subcutaneously one hour before administration.

During the war in the English hospitals, grouping of the organism was carried out and the particular serum injected. But while they thus reduced the mortality considerably, they neglected to combine with the intraspinal, the intravenous therapy. This, therefore, offers further possibilities, although time is necessary for the typing of the meningococcus and it is precisely these first few hours—namely, the first 48 hours after the patient comes under observation—that are the most important and require intensive treatment. Frequently enough it was seen that these first 4 doses were sufficient and no more were needed.

The danger of performing lumbar puncture in cases of meningococcus septicemia in actually causing an infection of the meninges by an as yet